



TRUSTED PLATFORMS FOR MISSION CRITICAL APPLICATIONS

Keycorp is a world-leading developer and supplier of secure electronic transaction solutions, including: high security smart card operating systems and solutions, payment terminals for electronic banking and electronic payment gateways.

Keycorp's expertise in multi-application smart cards is focused particularly on smart card platform security and mission critical applications. We offer the most comprehensive range of MULTOS products, that have been specifically designed and engineered to meet the specialized needs of government, financial and IT security markets, requiring the highest level of trust, privacy and information security. As an open platform, MULTOS provides a number of very important benefits compared to alternative proprietary and open platforms:

- Unsurpassed level of security. MULTOS security has achieved the highest level of independent certification ever reached by a smart card technology – ITSEC E6 High;
- Rapid and secure introduction of new strategies and value added services to existing card base. MULTOS has been designed to support loading and deleting of new applications as they become available, at any time during the card lifecycle. ITSEC E6 High evaluated secure dynamic card and application management protocols facilitate the addition of new, as well as the maintenance of existing applications without the need to replace an already issued card base;
- Issuer-centric business model, ideally suited for security sensitive financial or

government applications. The issuer of the card retains the control of information on the card and how it is used at all times;

- Flexible supply chain. Open specifications and a mandatory, third party Type Approval process guarantee cross-platform interoperability at all levels of the supply chain. Multiple vendors are available to supply any component of MULTOS based end-to-end solutions, ensuring that the card issuer is not locked into a single supply chain situation;
- Easy deployment. MULTOS is a mature and proven technology, supported by the network of industry's leading vendors ranging from operating system implementers to chip vendors, card manufacturers, personalization bureaus, card and application management system vendors all providing components for MULTOS end-to-end solution;
- Wide variety of "off the shelf" applications are available from a large base of application developers. MULTOS enables fast application development using industry standard languages such as C and Java, as well as the super-efficient MULTOS Executable Language (MEL);
- Protection on investment. Cross-platform interoperability and backwards compatibility ensure that applications will run on all current and future MULTOS plat-

forms without any change and without costly re-building of data preparation and personalization systems;

- Lower card cost at issuance, as the result of fast personalization made possible by the range of applications already built into ROM memory, the ability to separate Data Preparation from the Personalization process, and the incorporation of fast personalization capability in the platform design. The card cost is also kept low as MULTOS is the most efficient open platform for multiple applications with smaller and faster application, meaning more applications can run on a smaller chip size.

Keycorp MULTOS product family, includes MULTOS and MULTOS step/one platforms, built on the latest Infineon SLE66Plus suite of contact, contactless and dual interface technology, with memory ranging from 4K (low cost MULTOS step/one) all the way through to large 64K devices.

As an additional value add, Keycorp MULTOS platforms come preconfigured with some of the most widely used smart-card applications, such as EMV payment, e-purse, PKI and match-on-card biometric algorithms (from Precise Biometrics). Keycorp MULTOS smart card technology has been deployed in high profile smart card projects, such as government solutions (including Hong Kong National ID – See Page XX, Norway State Lottery and others), major EMV migration projects around the world (including dozens of MasterCard member banks and other regional payment systems). Beyond the supply of technology, Keycorp also offers commercial and technical services and support for smart card technology and EMV migration, including our expertise in payment terminals and gateways, directly to banks and government agencies.



* MULTOS contactless platform suitable for contactless payment and ICAO e-passport deployment is to be released in 2005.